REMARKS

Claims 1 – 24 are currently pending in this application with claims 1, 2, 4, 6, 7, 9 - 11, 13 –17, 19, 21, 23 and 24 being amended by this response. Support for these amendments can be found throughout the specification and drawing figures and, more specifically on page 4, lines 3-11. Therefore, Applicant respectfully submits that no new matter is added by these amendments to the claims.

Objection to the Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "10400" has been used to designate both the database and data table in paragraph [0071] of the specification. Figure 10 clearly shows that reference character "10300" refers to the database and reference character "10400" refers to the data table. The specification has been amended to designate reference character "10300" for the database. Thus, Applicant respectfully requests that the objection to the drawings should be withdrawn.

Rejection of claims 1, 3, 5-6, 10-11, 13-15, 17, 19, 21 and 23 under 35 U.S.C. 112

Claims 1, 3, 5-6, 10-11, 13-15, 17, 19, 21 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as invention.

Claims 1, 10-11, 13-15, 17, 19 and 21 have been amended to indicate that the first and second diagnostic codes are "associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient". The claims have also been amended to indicate that the first and second assignment systems are "code assignment" systems containing a first and second "diagnosis code set". Therefore, Applicant respectfully submits that the rejection of claims 1, 10-11, 13-15, 17, 19 and 21 should be withdrawn.

As specified above, the first and second diagnostic codes are derived using diagnosis code sets and are thus both diagnosis codes. Therefore, "said first diagnostic code equals said second diagnostic code" is proper since both are diagnosis codes. Therefore, Applicant respectfully submits that the rejection of claim 3 should be withdrawn.

Regarding claim 5, paragraph 0053 of the specification clearly defines the use of a null code: "In certain operative embodiments the first diagnostic code is a null code". Applicant respectfully submits that a null code is well-known in the art. In the field of computer science, when a variable has no value, it is considered to be null.

Since the function and full description of the second diagnostic code and the second code assignment system have been clarified with the amendments as discussed above, Applicant respectfully submits that the rejection of claims 6 and 23 should be withdrawn.

Rejection of claims 1, 3, 6-10, 17, and 24 under 35 U.S.C. 102(e)

Claims 1, 3, 6-10, 17, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Pollard et al. (U.S. Publication No. 2002/0147616 A1).

The present claimed system associates diagnostic codes with a visit record of a patient visit. The system comprises an interface processor for receiving a visit record comprising a first diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient derived, by using a first diagnosis code set of a first code assignment system. The system further comprises a source of rules for processing the visit record to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system different from the first code assignment system. The system further comprises a data processor for processing the visit record and the first diagnostic code using the rules to provide the visit record including the second diagnostic code. The system further comprises an output processor for processing the visit record including the second diagnostic code compatible with the second code assignment system to be suitable for output to a user. For the reasons presented below, Pollard fails to disclose or suggest each feature of the present claimed system.

Pollard describes a method and apparatus for introducing medical necessity policy into a clinical decision making process at the point of care. A handheld device, such as a personal digital assistant ("PDA"), can be used at the point-of-care to find an appropriate pair of diagnosis code and treatment procedure code for us in writing an order for further medical treatment procedures for a particular patient. The choice of diagnosis code and treatment procedure code can be checked for conformance with the requirements set forth in a particular set of medical necessity policy rules. (See Abstract).

The present claimed system is concerned with associating diagnostic codes with a visit record of a patient. Specifically, the present claimed system involves **two** distinct **diagnosis** code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard, however, only uses a diagnosis code set along with a corresponding **treatment** procedure code set "such as CPT™ (Current Procedural Terminology)" (paragraph 0007) that have been verified as authorized pairs to

ensure that an order for medical services is proper. Unlike the present claimed arrangement, the objective of Pollard is "to make sure that the pair of codes" (dignaosis and corresponding treatment codes) "works in an authorized pair under the relevant set of medical necessity policy rules" (paragraph 0044). Pollard's authorized pairs of a diagnosis code and treatment code are wholly unlike and unrelated to the use of the **two different diagnosis** code assignment systems in the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Thus, Pollard neither discloses nor suggests "a source of rules for processing said visit to determine a **second diagnostic** code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in claim 1 in the present claimed arrangement.

Pollard is only concerned with the relationship between diagnosis codes and treatment procedure codes in order to verify that "an order for further treatment procedures for a particular patient" is proper (see Abstract). Treatment is wholly different to diagnosis and occurs AFTER diagnosis i.e. at an entirely different stage in a healthcare provision cycle. Further, "the choice of diagnosis code and treatment procedure code can be checked for conformance with the requirements set forth in a particular set of medical necessity policy rules" (see Abstract). However, Pollard does not "process[] said visit record and first diagnosis code set using said rules to provide said visit record including said second diagnostic code" as in the present claimed arrangement. Pollard simply verifies that the diagnosis code and treatment procedure code match guidelines in "the medical necessity policy rules". Pollard does NOT describe rules to extrapolate a second diagnosis code based on a first diagnosis code. Therefore, Pollard neither discloses nor suggests "a data processor for processing said visit record and said first diagnostic code using said rules to provide said visit record including said diagnostic code" as recited in claim 1 of the present claimed arrangement.

Therefore, as Pollard fails to show or suggest each feature in claim 1, Pollard docs not anticipate the present claimed system. Consequently, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. 102(e) be withdrawn.

Claim 3 is dependent on independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 3 is also considered to be patentable because Pollard neither discloses nor suggests "said first diagnosis code equals said second diagnosis code" as recited in the present claimed system.

Claim 6 is dependent on independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 6 is also considered to be patentable because Pollard neither discloses nor suggests "said second code assignment system comprises a predetermined system of rules for assigning said second diagnostic code to said visit record based on characteristics of said visit".

Pollard describes that a handheld device "has the CPT codes and ICD-9-CM codes for the physician's specialty loaded. The physician finds the desired tests and/or treatment procedure as one of the listed CPT codes". (Paragraph 0051). Pollard also "notes that a Medical Necessity policy applies to the CPT code for this test. The physician asks the device for a list of ICD-9-CM codes that are considered to justify this test" (Paragraph 0051). Thus, Pollard relates a procedural code to the diagnosis code but does NOT assign a second diagnostic code as Pollard does not "determine a second diagnostic code...compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed system. Therefore, Pollard neither discloses nor suggests "said second code assignment system comprises a predetermined system of rules for assigning said second diagnostic code to said visit record based on characteristics of said visit" as recited in claim 6 of the present claimed system. Consequently, it is respectfully requested that the rejection of claim 6 under 35 U.S.C. 102(e) be withdrawn.

Claim 7 is dependent on independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 7 is also considered to be patentable because Pollard neither discloses nor suggests "said second code assignment system comprises at least one of, (a) a CMS Grouper, (b) a Champus Grouper, (c) an All-Patient DRG Grouper and (d) a United States state associated Grouper".

Pollard describes the use of a diagnosis code set and a treatment procedure code set. Pollard only describes that the "diagnoses are codified using code sets such as ICD-9-CM (International Classification of Disease, 9th Revision, Clinical Modification), DRG (Diagnosis Related Groups) published by HCFA, DSM IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition)..." (Paragraph 0007) However, the treatment procedure code sets comprise "CPT^{TM} (Current Procedural Terminology) published by the American Association (AMA) and HCPCS..." Pollard does NOT include "a second code assignment system" that is diagnosis code based. Unlike the present claimed system, there is only a single diagnosis code set in Pollard. The present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Thus, Pollard neither discloses nor suggests "said second code

assignment system comprises at least one of, (a) a CMS Grouper, (b) a Champus Grouper, (c) an All-Patient DRG Grouper and (d) a United States state associated Grouper". Consequently, it is respectfully requested that the rejection of claim 7 under 35 U.S.C. 102(e) be withdrawn.

Claim 8 is dependent on independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 8 is also considered to be patentable because Pollard neither discloses nor suggests "said second diagnostic code is derived from a code set including at least one of: (a) ICD-9-CM, (b) ICD-10, (c) HCPCS, (d) NDC, (e) CPT-4, (f) CDPN, (g) SNOMED-RT, (h) UMLS, (i) LOINC (j) "Read Codes", (k) DIN, (l) CDT, (m) NIC, and (n) DRGs Diagnosis Related Groups".

Pollard describes the use of a diagnosis code set and a treatment procedure code set (Paragraph 0007). Pollard only describes that the "diagnoses are codified using code sets such as ICD-9-CM (International Classification of Disease, 9th Revision, Clinical Modification), DRG (Diagnosis Related Groups) published by HCFA, DSM IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition)..." (Paragraph 0007). However, the treatment procedure code sets comprise "CPT™ (Current Procedural Terminology) published by the American Association (AMA) and HCPCS..." Pollard does NOT include "a second code assignment system" that is diagnosis code based. Unlike the present claimed system, there is only a single diagnosis code set in Pollard. The present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a **second diagnostic** code set of a **second code assignment** system different from said first code assignment system". Thus, Pollard neither discloses nor suggests "said second diagnostic code is derived from a code set including at least one of: (a) ICD-9-CM, (b) ICD-10, (c) HCPCS, (d) NDC, (e) CPT-4, (f) CDPN, (g) SNOMED-RT, (h) UMLS, (i) LOINC (j) "Read Codes", (k) DIN, (l) CDT, (m) NIC, and (n) DRGs Diagnosis Related Groups". Consequently, it is respectfully requested that the rejection of claim 8 under 35 U.S.C. 102(e) be withdrawn.

Claim 9 is dependent on independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 9 is also considered to be patentable because Pollard neither discloses nor suggests "said data processor uses said rules, for, identifying whether said first diagnostic code is incompatible with said second diagnosis code set of said second code assignment system and if said first diagnostic code is incompatible, assigning said second diagnostic code to be compatible with said second code assignment system".

Pollard describes the use of a diagnosis code set and a treatment procedure code set (Paragraph 0007). Pollard does NOT include "a second code assignment system" that is based on a diagnosis code. Unlike the present claimed system, Pollard merely describes using a single diagnosis code set for correlation with a procedural code set. The present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard's diagnosis code would NOT be compatible with (or equivalent to) the treatment procedure code assignment system and thus is not equivalent to the claimed first and second diagnosis code sets. Moreover, a treatment procedure code (or system assigning such a code) would not be compatible with the diagnosis code assignment system. Pollard, in paragraph 0053, as referenced in the Office Action, merely describes that a "physician goes to the ICD-9-CM list for the physician's speciality and picks the ICD-9-CM code that the physician believes best describes the patient's condition. Upon request, the device provides a list of all CPT does for treatment procedures that are supported by this ICD-9-CM under the LMRP". Thus, Pollard's device only displays qualified diagnosis and treatment procedure code set pairs to a physician. The system described by Pollard does not address an incompatibility between a first diagnosis pair and a second code assignment system as in the present claimed arrangement. Thus, Pollard neither discloses nor suggests "said data processor uses said rules, for, identifying whether said first diagnostic code is incompatible with said second diagnosis code set of said second code assignment system and if said first diagnostic code is incompatible, assigning said second diagnostic code to be compatible with said second code assignment system" as recited in claim 9 of the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 9 under 35 U.S.C. 102(e) be withdrawn.

Claim 10 is dependent on independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 10 is also considered to be patentable because Pollard neither discloses nor suggests "said data processor uses said rules for processing a plurality of visit records and corresponding associated first diagnostic codes using said rules to provide said plurality of visit records including second diagnostic codes compatible with said second diagnosis code set of said second code assignment system by, identifying whether said first diagnostic codes are incompatible with said second diagnosis code set of said second code assignment system and for visit records comprising incompatible codes, assigning second diagnostic codes to be compatible with said second code assignment system and for visit records comprising compatible codes, using said first diagnostic codes as said second diagnostic codes".

Pollard describes the use of a diagnosis code set and a treatment procedure code set (Paragraph 0007). Pollard does NOT include "a second code assignment system" that is diagnosis code based. Unlike the present claimed system, there is only a single diagnosis code set in Pollard. The present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard's diagnosis code would NOT be compatible with the treatment procedure code assignment system, and, similarly, a treatment procedure code would not be compatible with the diagnosis code assignment system. Pollard, in paragraph 0053, as referenced in the Office Action, merely describes that a "physician goes to the ICD-9-CM list for the physician's specialty and picks the ICD-9-CM code that the physician believes best describes the patient's condition. Upon request, the device provides a list of all CPT codes for treatment procedures that are supported by this ICD-9-CM under the LMRP". Thus, Pollard's device only displays qualified diagnosis and treatment procedure code set pairs to a physician but does not address an incompatibility between a first diagnosis pair and a second code assignment system as in the present claimed arrangement. Thus, Pollard neither discloses nor suggests "said data processor uses said rules for processing a plurality of visit records and corresponding associated first diagnostic codes using said rules to provide said plurality of visit records including second diagnostic codes compatible with said second code assignment system by, identifying whether said first diagnostic codes are incompatible with said second code assignment system and for visit records comprising incompatible codes, assigning second diagnostic codes to be compatible with said second code assignment system and for visit records comprising compatible codes, using said first diagnostic codes as said second diagnostic codes" as recited in claim 17 of the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 17 under 35 U.S.C. 102(e) be withdrawn.

Claim 17 is contains features similar to independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Consequently, it is respectfully requested that the rejection of claim 17 under 35 U.S.C. 102(e) be withdrawn.

Claim 24 contains features similar to independent claim 1 and is considered to be patentable for the reasons given above in connection with claim 1. Claim 24 is also considered to be patentable because Pollard neither discloses nor suggests "the set of rules adapted to process the visit record to determine the second diagnostic code compatible with a second diagnosis code set of second code assignment system comprising information adapted to derive a diagnostic code set".

Pollard describes the use of a diagnosis code set and a treatment procedure code set (Paragraph 0007). Pollard does NOT include "a second code assignment system" that is diagnosis code based. Unlike the present claimed system, there is only a single diagnosis code set in Pollard. The present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard's diagnosis code would NOT be compatible with the treatment procedure code assignment system, and, similarly, a treatment procedure code would not be compatible with the diagnosis code assignment system. Pollard, in paragraph 0053, as referenced in the Office Action, merely describes that a "physician goes to the ICD-9-CM list for the physician's specialty and picks the ICD-9-CM code that the physician believes best describes the patient's condition. Upon request, the device provides a list of all CPT codes for treatment procedures that are supported by this ICD-9-CM under the LMRP". Thus, Pollard's device only displays qualified diagnosis and treatment procedure code set pairs to a physician but does not address an incompatibility between a first diagnosis pair and a second code assignment system as in the present claimed arrangement. Thus, Pollard neither discloses nor suggests "the set of rules adapted to process the visit record to determine the second diagnostic code compatible with a second diagnosis code set of a second code assignment system comprising information adapted to derive a diagnostic code set" as recited in claim 24 of the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 24 under 35 U.S.C. 102(e) be withdrawn.

Rejection of claims 4, 11-14, and 19-23 under 35 U.S.C. 103(a)

Claims 4, 11-14, and 19-23 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Pollard et al. in view of Cave et al. (U.S. Patent No. 5,970,463) [hereinafter Cave] in further view of Dang (U.S. Patent No. 5,835, 897).

Cave describes a medical claims analysis system and method which categorizes medical claims into episodes of care having predetermined diagnostic cluster types. The system analyzes medical claim items, some of which have principal diagnosis codes, and some of which have non-principal, missing, or incorrect diagnosis codes. Patient treatment episodes (PTEs) are formed from the principal diagnosis codes, each PTE being of a particular diagnostic cluster type. The system categorizes non-principal-diagnosis claim items into the PTEs on the basis of temporal, physiological or clinical relationships between the claim items and the PTEs. A drug lookup table enables drug claims to be properly categorized in the PTEs. A diagnostic cluster lookup table enables claim items to be categorized into PTEs with ongoing treatment windows for which the diagnosis code of the claim item is in the diagnostic cluster lookup table. The system merges PTEs of the same diagnostic cluster type when the treatment

windows of the PTEs overlap. The system attempts to recategorize medical claims into merged PTEs. The system analyzes each PTE to determine the presence of required diagnoses and eliminates any PTE without a required diagnosis (see Abstract).

Dang describes a computer-implemented program for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers. The software program allows an objective means for measuring and quantifying health, care services. An episode treatment group (ETG) is a patient classification system with groups that are clinically homogenous (similar cause of illness and treatment) and statistically stable. ETG grouper software uses service or segment-level claim data as input data and assigns each service to the appropriate episode. The program identifies concurrent and recurrent episodes, flags records, creates new groupings, shifts groupings for changed conditions, selects the most recent claims, resets windows, makes a determination if the provider is an independent lab and continues to collect information until an absence of treatment is detected (see Abstract).

The present claimed system is concerned with associating diagnostic codes with a visit record of a patient. Specifically, the present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard, however, only uses a diagnosis code set along with a treatment procedure code set "such as CPT™ (Current Procedural Terminology)" (paragraph 0007) that have been verified as authorized pairs to ensure that an order for medical services is proper. Unlike the present claimed arrangement, the objective of Pollard is "to make sure that the pair of codes works in an authorized pair under the relevant set of medical necessity policy rules" (paragraph 0044). Pollard's authorized pairs of a diagnosis code are wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Pollard does not contain "a source of rules for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Thus, Pollard neither discloses nor suggests "said rules include sets of rules associated with particular time periods of validity for processing said visit record to determine said second diagnostic code compatible with said second code assignment system valid during a particular time period" as recited in claim 4 in the present claimed arrangement.

Cave, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 2, lines 44-67). Unlike the present claimed system, Cave "enables a health plan to more accurately assess the plan's true overall cost efficiency and its cost efficiency with respect to treatment of particular medical conditions" (column 3, lines 61-67). Further, "The medical claims data consists of medical claim items, at least one portion of which includes principal diagnosis codes, and at least a second portion of which includes non-principal diagnosis codes, no diagnosis codes, or incorrect diagnosis codes". (Column 4, lines 5-11). However, Cave is only concerned with "categoriz[ing] at least some of the claim items of the second portion of the medical claims in the PTEs [patient treatment episodes] on the basis of a relationship between the second portion claim items and the PTEs" (column 4, lines 14-18) and uses an "episode-of-care approach" to examine all services used to treat a patient for assessing a plan's cost efficiency (column 3, line 61-column 4, line 4). Cave's objective of categorizing medical claims into episodes of care having predetermined diagnostic cluster types is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Cave does not contain "a source of rules for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Thus, Cave, similarly to Pollard, neither discloses nor suggests "said rules include sets of rules associated with particular time periods of validity for processing said visit record to determine said second diagnostic code compatible with said second code assignment system valid during a particular time period" as recited in claim 4 in the present claimed arrangement.

Dang, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 6, lines 60-64). Unlike the present claimed system, Dang describes a "computer-implemented program for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers" (see Abstract). Dang describes that "[t]he management record is examined and the first diagnosis code on the record is read, a diagnosis code (dx) by ETG [episode treatment group] table 201 is read from the storage means and all valid ETGs for the first diagnosis code on record are identified at step 216" (Column 22, lines 53-57). However, Dang is only concerned with providing "a computer-implemented medical claims profiling system" (Column 5, lines 36-38) and "resets windows of time based upon complication, co-morbidities or increased severity of clinical conditions" (column 6, lines 1-4). Dang's profiling system and resetting windows of time is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Dang does not contain "a

source of rules for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Thus, Dang, similarly to Pollard and Cave, neither discloses nor suggests "said rules include sets of rules associated with particular time periods of validity for processing said visit record to determine said second diagnostic code compatible with said second code assignment system valid during a particular time period" as recited in claim 4 in the present claimed arrangement.

Applicant respectfully submits that the systems of Pollard, Cave and Dang are incompatible and there is no motivation to combine them. Pollard is concerned with using a handheld device "at the point-of-care to find an appropriate pair of diagnosis code and treatment procedure code for use in writing an order for further medical treatment procedure for a particular patient" (page 4, paragraphs 0042-0043). Pollard describes a method of preparing an order for medical services that must happen "as the physician goes about the practice in interacting with patients" (paragraph 0042). Pollard's near-instantaneous device operation would not incorporate Cave's "medical claims analysis system and method that enables a health plan to more accurately assess the plan's true overall cost of efficiency" because Cave is not concerned with instantaneous patient care. Cave describes that "[t]he common computer system upon which the invention operates is preferably Unix-based, such as a DEC Alpha or an HP 9000". Thus, Cave's medical claims analysis system would not be compatible with Pollard's handheld device. Similarly, Dang's computer-implemented method for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers is wholly unlike Pollard's method of preparing an order for medical services. Dang, like Cave, is concerned with the analysis of an aggregate of medical claims of multiple patients and NOT claims of a single patient. Additionally, Dang, like Cave, is designed to run on a traditional computer system "connected to a keyboard 16 which allows the user to input commands and data into the CPU" (column 9, lines 1-4). Dang and Cave would not be run on Pollard's handheld device. Since Pollard is concerned with instantaneous patient care and Dang and Cave are concerned with analysis of overall medical services from a healthcare manager standpoint, there would be no reason or motivation to combine these references.

Even if the systems of Pollard, Cave and Dang were combined, the resulting system introduces medical necessity policy into the clinical decision making process at the point of care, categorizes medical claims into episodes of code having predetermined diagnostic cluster types, and profiles medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers and would not disclose the features of the present claimed system. The features of the combined system would be wholly unlike and

unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Additionally, the combined system, similarly to the individual systems, would not contain "a source of rules for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Thus, the combined system of Pollard, Cave and Dang, similarly to the individual systems, would neither disclose nor suggest "said rules include sets of rules associated with particular time periods of validity for processing said visit record to determine said second diagnostic code compatible with said second code assignment system valid during a particular time period" as recited in claim 4 in the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 4 under 35 U.S.C. 103(a) be withdrawn.

Claim 11 provides a system for associating a diagnostic code to a record of a patient visit. The system includes an interface processor for receiving a visit record comprising a first diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, derived by using a first diagnosis code set of a first code assignment system. The system further includes a source of sets of rules associated with particular time periods of validity, for processing the visit record to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system valid during a particular time period. The system further includes a data processor for processing the visit record and the first diagnostic code using the sets of rules to provide the visit record including the second diagnostic code, the second diagnostic code being valid for a particular time period encompassing a date of the visit. An output processor initiates communication of data, representing the visit record and the second diagnostic code compatible with the second code assignment system, to a destination system in response to a command.

The present claimed system is concerned with associating diagnostic codes with a visit record of a patient. Specifically, the present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard, however, only uses a diagnosis code set along with a treatment procedure code set "such as CPT™ (Current Procedural Terminology)" (paragraph 0007) that have been verified as authorized pairs to ensure that an order for medical services is proper. Unlike the present claimed arrangement, the objective of

Pollard is "to make sure that the pair of codes works in an authorized pair under the relevant set of medical necessity policy rules" (paragraph 0044). Pollard's authorized pairs of a diagnosis code are wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Pollard neither discloses nor suggests "a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited claim 11 of the present claimed arrangement. Additionally, Pollard neither discloses nor suggests "a data processor for processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code" as recited in claim 11 in the present claimed arrangement.

Cave, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 2, lines 44-67). Unlike the present claimed system, Cave "enables a health plan to more accurately assess the plan's true overall cost efficiency and its cost efficiency with respect to treatment of particular medical conditions" (column 3, lines 61-67). Further, "The medical claims data consists of medical claim items, at least one portion of which includes principal diagnosis codes, and at least a second portion of which includes non-principal diagnosis codes, no diagnosis codes, or incorrect diagnosis codes". (Column 4, lines 5-11). However, Cave is only concerned with "categoriz[ing] at least some of the claim items of the second portion of the medical claims in the PTEs [patient treatment episodes] on the basis of a relationship between the second portion claim items and the PTEs" (column 4, lines 14-18) and uses an "episode-of-care approach" to examine all services used to treat a patient for assessing a plan's cost efficiency (column 3, line 61-column 4, line 4). Cave's objective of categorizing medical claims into episodes of code having predetermined diagnostic cluster types is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Cave, column 6, lines 42-54, relied upon in the Office Action, merely describes a "multi-step process is used to determine the likely medical condition". "If the largest room and board item does not have a specific diagnosis, the diagnosis of the largest physician's charge with a specific diagnosis code between the start date and the end date is assigned to all items in that inpatient episode" (column 6, lines 55-58). Thus, Cave assigns a diagnosis code based on specific criteria, such room and board items, and does NOT involve "a set of rules to determine a second diagnostic code ... compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as in the present claimed arrangement. Cave,

similarly to Pollard, does not contain "a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited claim 11 of the present claimed arrangement.

Additionally, Cave, similarly to Pollard, neither discloses nor suggests "a data processor for processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit" as recited in claim 11 in the present claimed arrangement. Cave, in column 7 line 63 through column 8, line 11, relied upon in the Office Action on page 17, merely describes building "patient treatment episodes (PTE), each of which has an associated diagnostic cluster type". Unlike the present claimed arrangement, the objective of Cave is to "categoriz[e] medical claims into episodes of care having predetermined diagnostic cluster types" (see Abstract). Cave's categorization is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Thus, Cave neither discloses nor suggests "a data processor for processing said visit record and said first diagnostic code using said sets of rules to provide said visit record including said second diagnostic code, said second diagnostic code being valid for a particular time period encompassing a date of said visit" as recited in claim 11 in the present claimed arrangement.

Dang, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 6, lines 60-64). Unlike the present claimed system, Dang describes a "computer-implemented program for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers" (see Abstract). Dang describes that "[t]he management record is examined and the first diagnosis code on the record is read, a diagnosis code (dx) by ETG [episode treatment group] table 201 is read from the storage means and all valid ETGs for the first diagnosis code on record are identified at step 216" (Column 22, lines 53-57). However, Dang is only concerned with providing "a computer-implemented medical claims profiling system" (Column 5, lines 36-38) and "resets windows of time based upon complication, co-morbidities or increased severity of clinical conditions" (column 6, lines 1-4). Dang's profiling system and resetting windows of time is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Dang neither discloses nor suggests "a source of sets of rules associated with particular time periods of validity, for

processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited claim 11 of the present claimed arrangement.

Applicant respectfully submits that the systems of Pollard, Cave and Dang are incompatible and thus, there is no motivation to combine them. Pollard is concerned with using a handheld device "at the point-of-care to find an appropriate pair of diagnosis code and treatment procedure code for use in writing an order for further medical treatment procedure for a particular patient" (page 4, paragraphs 0042-0043). Pollard describes a method of preparing an order for medical services that must happen "as the physician goes about the practice in interacting with patients" (paragraph 0042). Pollard's near-instantaneous device operation would not incorporate Cave's "medical claims analysis system and method that enables a health plan to more accurately assess the plan's true overall cost of efficiency" because Cave is not concerned with instantaneous patient care. Cave describes that "[t]he common computer system upon which the invention operates is preferably Unix-based, such as a DEC Alpha or an HP 9000". Thus, Cave's medical claims analysis system would not be compatible with Pollard's handheld device. Similarly, Dang's computer-implemented method for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers is wholly unlike Pollard's method of preparing an order for medical services. Dang, like Cave, is concerned with the analysis of an aggregate of medical claims of multiple patients and NOT claims of a single patient. Additionally, Dang, like Cave, is designed to run on a traditional computer system "connected to a keyboard 16 which allows the user to input commands and data into the CPU" (column 9, lines 1-4). Dang and Cave would not be run on Pollard's handheld device. Since Pollard is concerned with instantaneous patient care and Dang and Cave are concerned with analysis of overall medical services from a healthcare manager standpoint, there would be no reason or motivation to combine these references.

Even if the systems of Pollard, Cave and Dang were combined, the resulting system that introduces medical necessity policy into the clinical decision making process at the point of care, categorizes medical claims into episodes of code having predetermined diagnostic cluster types, and profiles medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers would not disclose the features of the present claimed system. The features of the combined system would be wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Additionally, the combined system, similarly to the individual systems, would neither disclose nor suggest "a source of sets of rules associated

with particular time periods of validity, for processing said visit record to determine a second diagnostic code . . . compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in claim 11 of the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 11 under 35 U.S.C. 103(a) be withdrawn.

Claims 12-13 are dependent on independent claim 11 and are considered to be patentable for the reasons given above in connection with claim 11. Consequently, it is respectfully requested that the rejection of claims 12-13 under 35 U.S.C. 103(a) be withdrawn.

Claim 14 provides a system for associating a diagnostic code to a record of a patient visit. An interface processor receives a visit record. The system comprises a source of sets of rules associated with particular time periods of validity, for processing the visit record to determine the diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a diagnosis code set of a code assignment system valid during a particular time period. A data processor processes the visit record using the sets of rules to provide the visit record including the diagnostic code, the diagnostic code being valid for a particular time period encompassing a date of the visit. An output processor initiates communication of data, representing the visit record and the diagnostic code compatible with the diagnosis code set of the code assignment system, to a destination system in response to a command.

The present claimed system is concerned with associating diagnostic codes with a visit record of a patient. Pollard, only uses a diagnosis code set along with a treatment procedure code set "such as CPT™ (Current Procedural Terminology)" (paragraph 0007) that have been verified as authorized pairs to ensure that an order for medical services is proper. Unlike the present claimed arrangement, the objective of Pollard is "to make sure that the pair of codes works in an authorized pair under the relevant set of medical necessity policy rules" (paragraph 0044). Pollard's authorized pairs of a diagnosis code are wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Pollard neither discloses nor suggests "a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a diagnosis code set of a code assignment system valid during a particular time period" as recited claim 14 of the present claimed arrangement. Additionally, Pollard neither discloses nor suggests "a data processor for

processing said visit record using said sets of rules to provide said visit record including said diagnostic code" as recited in claim 14 in the present claimed arrangement.

Cave, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 2, lines 44-67). Unlike the present claimed system, Cave "enables a health plan to more accurately assess the plan's true overall cost efficiency and its cost efficiency with respect to treatment of particular medical conditions" (column 3, lines 61-67). Further, "The medical claims data consists of medical claim items, at least one portion of which includes principal diagnosis codes, and at least a second portion of which includes non-principal diagnosis codes, no diagnosis codes, or incorrect diagnosis codes". (Column 4, lines 5-11). However, Cave is only concerned with "categoriz[ing] at least some of the claim items of the second portion of the medical claims in the PTEs [patient treatment episodes] on the basis of a relationship between the second portion claim items and the PTEs" (column 4, lines 14-18) and uses an "episode-of-care approach" to examine all services used to treat a patient for assessing a plan's cost efficiency (column 3, line 61-column 4, line 4). Cave's objective of categorizing medical claims into episodes of code having predetermined diagnostic cluster types is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Cave, column 6, lines 42-54, relied upon in the Office Action, merely describes a "multi-step process is used to determine the likely medical condition". "If the largest room and board item does not have a specific diagnosis, the diagnosis of the largest physician's charge with a specific diagnosis code between the start date and the end date is assigned to all items in that inpatient episode" (column 6, lines 55-58). Although Cave mentions a start and end date, this variable is only used ensure that "all of the items for the inpatient stay between the start date and the end date are assigned that diagnosis" (column 6, lines 51-54). Thus, Cave assigns a diagnosis code based on specific criteria, such room and board items, that are NOT "sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a diagnosis code set of a code assignment system valid during a particular time period" as in the present claimed arrangement. Cave, similarly to Pollard, does not contain "a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a diagnosis code set of a code assignment system valid during a particular time period" as recited claim 14 of the present claimed arrangement.

Additionally, Cave, similarly to Pollard, neither discloses nor suggests a "data processor for processing said visit record using said sets of rules to provide said visit record including said diagnostic code, said diagnostic code being valid for a particular time period encompassing a date of said visit" as recited in claim 14 in the present claimed arrangement. Cave, in column 7 line 63 through column 8, line 11, relied upon in the Office Action on page 17, merely describes building "patient treatment episodes (PTE), each of which has an associated diagnostic cluster type". Unlike the present claimed arrangement, the objective of Cave is to "categoriz[e] medical claims into episodes of care having predetermined diagnostic cluster types" (see Abstract). Cave's categorization is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Thus, Cave neither discloses nor suggests "a data processor for processing said visit record using said sets of rules to provide said visit record including said diagnostic code, said diagnostic code being valid for a particular time period encompassing a date of said visit" as recited in claim 14 in the present claimed arrangement.

Dang, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 6, lines 60-64). Unlike the present claimed system, Dang describes a "computer-implemented program for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers" (see Abstract). Dang describes that "[t]he management record is examined and the first diagnosis code on the record is read, a diagnosis code (dx) by ETG [episode treatment group] table 201 is read from the storage means and all valid ETGs for the first diagnosis code on record are identified at step 216" (Column 22, lines 53-57). However, Dang is only concerned with providing "a computer-implemented medical claims profiling system" (Column 5, lines 36-38) and "resets windows of time based upon complication, co-morbidities or increased severity of clinical conditions" (column 6, lines 1-4). Dang's profiling system and resetting windows of time is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Dang neither discloses nor suggests "a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a diagnosis code set of a code assignment system valid during a particular time period" as recited claim 14 of the present claimed arrangement.

Applicant respectfully submits that the systems of Pollard, Cave and Dang are incompatible and there is no motivation to combine them. Pollard is concerned with using a

handheld device "at the point-of-care to find an appropriate pair of diagnosis code and treatment procedure code for use in writing an order for further medical treatment procedure for a particular patient" (page 4, paragraphs 0042-0043). Pollard describes a method of preparing an order for medical services that must happen "as the physician goes about the practice in interacting with patients" (paragraph 0042). Pollard's near-instantaneous device operation would not incorporate Cave's "medical claims analysis system and method that enables a health plan to more accurately assess the plan's true overall cost of efficiency" because Cave is not concerned with instantaneous patient care. Cave describes that "[t]he common computer system upon which the invention operates is preferably Unix-based, such as a DEC Alpha or an HP 9000". Thus, Cave's medical claims analysis system would not be compatible with Pollard's handheld device. Similarly, Dang's computer-implemented method for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers is wholly unlike Pollard's method of preparing an order for medical services. Dang, like Cave, is concerned with the analysis of an aggregate of medical claims of multiple patients and NOT claims of a single patient. Additionally, Dang, like Cave, is designed to run on a traditional computer system "connected to a keyboard 16 which allows the user to input commands and data into the CPU" (column 9, lines 1-4). Dang and Cave would not be run on Pollard's handheld device. Since Pollard is concerned with instantaneous patient care and Dang and Cave are concerned with analysis of overall medical services from a healthcare manager standpoint, there would be no reason or motivation to combine these references.

Even if the systems of Pollard, Cave and Dang were combined, the resulting system that introduces medical necessity policy into the clinical decision making process at the point of care, categorizes medical claims into episodes of code having predetermined diagnostic cluster types, and profiles medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers would not disclose the features of the present claimed system. The features of the combined system would be wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Additionally, the combined system, similarly to the individual systems, would neither disclose nor suggest "a source of sets of rules associated with particular time periods of validity, for processing said visit record to determine said diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a diagnosis code set of a code assignment system valid during a particular time period" as recited in claim 14 of the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 14 under 35 U.S.C. 103(a) be withdrawn.

Claims 19 and 21 contains features similar to independent claim 11 and are considered to be patentable for the reasons given above in connection with claim 11. Claims 20 and 22-23 are dependent on claims 19 and 21, respectively, and are considered to be patentable for the reasons given above in connection with claims 19 and 21. Consequently, it is respectfully requested that the rejection of claim 19-23 under 35 U.S.C. 103(a) be withdrawn.

Rejection of claims 2, 5, and 15-18 under 35 U.SC. 103(a)

Claims 2, 5, and 15-18 Re rejected under 35 U.SC. 103(a) as being unpatentable over Pollard et al. in view of Dang.

The present claimed system is concerned with associating diagnostic codes with a visit record of a patient. Specifically, the present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard, however, only uses a diagnosis code set along with a treatment procedure code set "such as CPT™ (Current Procedural Terminology)" (paragraph 0007) that have been verified as authorized pairs to ensure that an order for medical services is proper. Unlike the present claimed arrangement, the objective of Pollard is "to make sure that the pair of codes works in an authorized pair under the relevant set of medical necessity policy rules" (paragraph 0044). Pollard's authorized pairs of a diagnosis code are wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Pollard does not contain "a source of rules for processing said visit record to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Thus, Pollard neither discloses nor suggests "said data processor processes said rules to determine said second diagnostic code compatible with said second code assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical treatment procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a treatment procedure date" as recited in claim 2 in the present claimed arrangement.

Dang, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 6, lines 60-64). Unlike the present claimed system, Dang describes a "computer-implemented program for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers" (see Abstract). Dang describes that "[t]he management record is examined and the first diagnosis code on the record is read, a diagnosis code (dx) by ETG [episode treatment group] table 201 is read from the storage means and all valid ETGs for the first diagnosis code on record are identified at step 216" (Column 22, lines 53-57). However, Dang is only concerned with providing "a computer-implemented medical claims profiling system" (Column 5, lines 36-38) and "resets windows of time based upon complication, co-morbidities or increased severity of clinical conditions" (column 6, lines 1-4). Dang's profiling system and resetting windows of time is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Dang does not contain "a source of rules for processing said visit record to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Dang describes creating "a single record for each individual episode containing ETG number, patient age, patient sex, episode number . . ". (column 18, lines 66-67) but does NOT do so as a result of a data processor processing a set of rules to determine the second diagnostic code compatible with a second assignment system as in the present claimed arrangement. Thus, Dang, similarly to Pollard, neither discloses nor suggests "said data processor processes said rules to determine said second diagnostic code compatible with said second code assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical treatment procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a treatment procedure date" as recited in claim 2 in the present claimed arrangement.

Applicant respectfully submits that the systems of Pollard and Dang are incompatible and there is no motivation to combine them. Pollard is concerned with using a handheld device "at the point-of-care to find an appropriate pair of diagnosis code and treatment procedure code for use in writing an order for further medical treatment procedure for a particular patient" (page 4, paragraphs 0042-0043). Pollard describes a method of preparing an order for medical services that must happen "as the physician goes about the practice in interacting with patients" (paragraph 0042). Pollard's near-instantaneous device operation would not incorporate Dang's

computer-implemented method for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care. Dang is only concerned with the analysis of an aggregate of medical claims of multiple patients and NOT claims of a single patient. Additionally, Dang is designed to run on a traditional computer system "connected to a keyboard 16 which allows the user to input commands and data into the CPU" (column 9, lines 1-4). Dang would not run on Pollard's handheld device. Since Pollard is concerned with instantaneous patient care and Dang is concerned with analysis of overall medical services from a healthcare manager standpoint, there would be no reason or motivation to combine these references.

Even if the systems of Pollard and Dang were combined, the resulting system that introduces medical necessity policy into the clinical decision making process at the point of care and profiles medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers would not disclose the features of the present claimed system. The features of the combined system would be wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Additionally, the combined system, similarly to the individual systems, would not contain "a source of rules for processing said visit record to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as recited in the present claimed arrangement. Thus, the combined system of Pollard, Cave and Dang, similarly to the individual systems, would neither disclose nor suggest "said data processor processes said rules to determine said second diagnostic code compatible with said second code assignment system using a plurality of information elements in said visit record including at least one of, (a) a primary diagnosis identifier, (b) a medical treatment procedure identifier, (c) a patient age, (d) a patient gender, (e) a secondary diagnosis identifier, (f) a service identifier identifying a service performed for a patient, (g) a length of patient stay in a medical facility, (h) an admission date, (i) a visit end date, (j) a diagnosis date and (k) a treatment procedure date" as recited in claim 2 in the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 2 under 35 U.S.C. 103(a) be withdrawn.

The Office Action relies on Dang, column 9, lines 41-46 as teaching "a system wherein said interface processor receives said visit record wherein said first diagnostic code is a null code, and said data processor processes said record, said rules to provide said visit record including said second diagnostic code (Office Action, page 27-28). Applicant respectfully

disagrees. The cited passage merely describes that "ETG 900 is reserved to 'Isolated Signs, Symptoms and Non-Specific Diagnoses or Conditions,' and is an ETG designation used where the diagnosis code is incapable of being assigned to another ETG". Thus, Dang merely assigns a special ETG to a non-assignable diagnosis code. Dang, similarly to Pollard, does NOT mention utilizing a "a source of rules for processing said visit record to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, compatible with a second diagnosis code set of a second code assignment system different from said first code assignment system" as in the present claimed arrangement. Dang, alone or in combination with Pollard, neither discloses nor suggests "said interface processor receives said visit record wherein said first diagnostic code is a null code, and said data processor processes said visit record, said rules to provide said visit record including said second diagnostic code" as recited in claim 5 of the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 5 under 35 U.S.C. 103(a) be withdrawn.

Claim 15 provides a system for associating a diagnostic code to a record of a patient visit. An interface processor receives visit records individually including a first diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, derived by using a first diagnosis code set of a first code assignment system. The system includes source of rules for processing individual visit records to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, for individual visit records, compatible with a second diagnosis code set of a second code assignment system. A data processor uses the rules for processing the visit records and first diagnostic codes to provide visit records including second diagnostic codes compatible with the second diagnosis code set of the second code assignment system by, grouping visit records into clusters comprising common characteristics using characteristic information in the visit records and assigning second diagnostic codes compatible with the second diagnosis code set of the second code assignment system, to visit records in the visit record clusters.

The present claimed system involves two distinct diagnosis code sets from two distinct code assignment systems: "a first diagnosis code set of a first code assignment system" and "a second diagnostic code set of a second code assignment system different from said first code assignment system". Pollard, however, only uses a diagnosis code set along with a treatment procedure code set "such as CPT™ (Current Procedural Terminology)" (paragraph 0007) that have been verified as authorized pairs to ensure that an order for medical services is proper. Unlike the present claimed arrangement, the objective of Pollard is "to make sure that the pair of codes works in an authorized pair under the relevant set of medical necessity policy rules"

(paragraph 0044). Pollard's authorized pairs of a diagnosis code are wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Pollard does not contain "a source of rules for processing individual visit records to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, for individual visit records, compatible with a second diagnosis code set of a second code assignment system" as recited in the present claimed arrangement. Thus, Pollard neither discloses nor suggests "a data processor for using said rules for processing said visit records and first diagnostic codes to provide visit records including second diagnostic codes compatible with said second diagnosis code set of said second code assignment system by, grouping visit records into clusters comprising common characteristics using characteristic information in said visit records and assigning second diagnostic codes compatible with said second diagnosis code set of said second code assignment system, to visit records in said visit record clusters" as recited in claim 15 in the present claimed arrangement.

Dang, similarly to Pollard, describes a system which uses both treatment procedure codes and diagnosis codes (column 6, lines 60-64). Unlike the present claimed system, Dang describes a "computer-implemented program for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers" (see Abstract). Dang describes that "[t]he management record is examined and the first diagnosis code on the record is read, a diagnosis code (dx) by ETG [episode treatment group] table 201 is read from the storage means and all valid ETGs for the first diagnosis code on record are identified at step 216" (Column 22, lines 53-57). However, Dang is only concerned with providing "a computer-implemented medical claims profiling system" (Column 5, lines 36-38) and "resets windows of time based upon complication, co-morbidities or increased severity of clinical conditions" (column 6, lines 1-4). Dang's profiling system and resetting windows of time is wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Dang does not contain "a source of rules for processing individual visit records to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, for individual visit records, compatible with a second diagnosis code set of a second code assignment system" as recited in the present claimed arrangement. Thus, Dang, similarly to Pollard, neither discloses nor suggests "a data processor for using said rules for processing said visit records and first diagnostic codes to provide visit records including second diagnostic codes compatible with said second diagnosis code set of said second code assignment system" as recited in claim 15 in the present claimed arrangement.

Applicant respectfully submits that the systems of Pollard and Dang are incompatible and there is no motivation to combine them. Pollard is concerned with using a handheld device "at the point-of-care to find an appropriate pair of diagnosis code and treatment procedure code for use in writing an order for further medical treatment procedure for a particular patient" (page 4, paragraphs 0042-0043). Pollard describes a method of preparing an order for medical services that must happen "as the physician goes about the practice in interacting with patients" (paragraph 0042). Pollard's near-instantaneous device operation would not incorporate Dang's computer-implemented method for profiling medical claims to assist health care managers in determining the cost-efficiency and service quality of health care. Dang is only concerned with the analysis of an aggregate of medical claims of multiple patients and NOT claims of a single patient. Additionally, Dang is designed to run on a traditional computer system "connected to a keyboard 16 which allows the user to input commands and data into the CPU" (column 9, lines 1-4). Dang would not run on Pollard's handheld device. Since Pollard is concerned with instantaneous patient care and Dang is concerned with analysis of overall medical services from a healthcare manager standpoint, there would be no reason or motivation to combine these references.

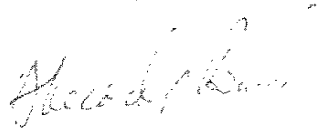
Even if the systems of Pollard and Dang were combined, the resulting system that introduces medical necessity policy into the clinical decision making process at the point of care and profiles medical claims to assist health care managers in determining the cost-efficiency and service quality of health care providers would not disclose the features of the present claimed system. The features of the combined system would be wholly unlike and unrelated to the objective of the present claimed system, to "re-group values when updated code assignment rules are realized" in a visit record of a patient visit (Specification, page 1, lines 21-23; see also page 7, lines 7-16). Additionally, the combined system, similarly to the individual systems, would not contain "a source of rules for processing individual visit records to determine a second diagnostic code associated with data indicating at least one of, a reason for a patient visit and treatment provided to a patient, for individual visit records, compatible with a second diagnosis code set of a second code assignment system" as recited in the present claimed arrangement. Thus, the combined system of Pollard, Cave and Dang, similarly to the individual systems, would neither disclose nor suggest a data processor for using said rules for processing said visit records and first diagnostic codes to provide visit records including second diagnostic codes compatible with said second diagnosis code set of said second code assignment system" as recited in claim 15 in the present claimed arrangement. Consequently, it is respectfully requested that the rejection of claim 15 under 35 U.S.C. 103(a) be withdrawn.

Claim 16 is dependent on independent claim 15 is considered to be patentable for the reasons given above in connection with claim 15. Consequently, it is respectfully requested that the rejection of claim 16 under 35 U.S.C. 103(a) be withdrawn.

Claim 18 is dependent on independent claim 17, which contains features similar to claim 15, and is considered to be patentable for the reasons given above in connection with claim 15. Consequently, it is respectfully requested that the rejection of claim 18 under 35 U.S.C. 103(a) be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,



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